

SEQUENCE LISTING

<110> Yale University

<120> TREATMENT AND PREVENTION OF CANCER AND PITUITARY
DISORDERS WITH LATS PROTEINS, DERIVATIVES AND
FRAGMENTS, AND LATS KNOCK-OUT ANIMAL MODELS

<130> 6523-020-228

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<170> PatentIn Ver. 2.0

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Asn Met Glu Tyr Val Ile Ser Arg Ile Ser Pro Val Pro Pro Gly Ala	
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Trp Gln Glu Gly Tyr Pro Pro Pro Pro Leu Thr Ser Pro Met Asn	
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Gln Pro Ile Ile Met Gln Ser Thr Ser Lys Phe Asn Phe Thr Pro Gly	
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Arg Pro Gly Val Gln Asn Gly Gly Gly Gln Ser Asp Phe Ile Val His	
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Gln Asn Val Pro Thr Gly Ser Val Thr Arg Gln Pro Pro Pro Pro Tyr	
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Pro Leu Thr Pro Ala Asn Gly Gln Ser Pro Ser Ala Leu Gln Thr Gly	
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Met Met Val Pro Asn Arg Asn Ser His Asn Met Glu Leu Tyr Asn Ile	
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Asn Val Pro Gly Leu Gln Thr Ala Trp Pro Gln Ser Ser Ser Ala Pro	
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Ala Gln Ser Ser Pro Ser Gly Gly His Glu Ile Pro Thr Trp Gln Pro	
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Ile Thr Pro Ala Pro Ile Gln Gln Pro Val Lys Ser Met Arg Val Leu	
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Lys Pro Glu Leu Gln Thr Ala Leu Ala Pro Thr His Pro Ser Trp Met	
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His Ile Lys Leu Thr Asp Phe Gly Leu Cys Thr Gly Phe Arg Trp Thr	
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Cys Leu Ala His Ser Leu Val Gly Thr Pro Asn Tyr Ile Ala Pro Glu	
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Ser Asp Gly Ser Glu Glu Glu Asn Ile Ser Asp Thr Leu Ser Gly Trp	
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 Tyr Val

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Gln Arg Val Asn Pro Pro Pro Pro Gln Val Arg Ser Val Thr Pro
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Pro Pro Pro Ser Trp Glu Pro Ser Ser Gln Thr Lys Arg Tyr Ser Gly
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Asn Met Glu Tyr Val Ile Ser Arg Ile Ser Pro Val Pro Pro Gly Ala
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Trp Gln Glu Gly Tyr Pro Pro Pro Pro Leu Thr Thr Ser Pro Met Asn
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 Gln Pro Ile Ile Met Gln Ser Thr Ser Lys Phe Asn Phe Thr Pro Gly
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 Arg Pro Gly Val Gln Asn Gly Gly Gly Gln Ser Asp Phe Ile Val His
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 Gln Asn Val Pro Thr Gly Ser Val Thr Arg Gln Pro Pro Pro Pro Tyr
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 Pro Leu Thr Pro Ala Asn Gly Gln Ser Pro Ser Ala Leu Gln Thr Gly
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Asp Arg Leu Lys Pro Leu Glu Arg Arg Ala Ala Arg Gln His Gln Arg
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Cys Asp Gln Glu Met Ala Gly Arg Ala Leu Thr Gln Thr Gly Ser Arg	
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 Lys Ser Val Asp Glu Val Lys Ser His Asp Phe Phe Lys Gly Ile Asp
 1005 1010 1015

ttt gcg gac atg cgg aag cag aaa gcg ccc tac ata ccg gaa atc aag 4204
 Phe Ala Asp Met Arg Lys Gln Lys Ala Pro Tyr Ile Pro Glu Ile Lys
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cac cca acg gac aca tcc aac ttt gat ccc gtg gat ccg gag aag ctg 4252
 His Pro Thr Asp Thr Ser Asn Phe Asp Pro Val Asp Pro Glu Lys Leu
 1035 1040 1045 1050

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 Arg Ser Asn Asp Ser Thr Met Ser Ser Gly Asp Asp Val Asp Gln Asn
 1055 1060 1065

gac cgc act ttc cac ggc ttt ttc gaa ttt acc ttc cgt cgc ttc ttc 4348
 Asp Arg Thr Phe His Gly Phe Phe Glu Phe Thr Phe Arg Arg Phe Phe
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 Asp Asp Lys Gln Pro Pro Asp Met Thr Asp Asp Gln Ala Pro Val Tyr
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 Val

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 35 40 45
 Thr Ala Thr Asn Gly Arg Asn Asp Ala Leu Thr Pro Asp Tyr His His
 50 55 60
 Ala Lys Gln Pro Met Glu Pro Pro Pro Ser Ala Ser Pro Ala Pro Asp
 65 70 75 80
 Val Val Ile Pro Pro Pro Pro Ala Ile Val Gly Gln Pro Gly Ala Gly
 85 90 95
 Ser Ile Ser Val Ser Gly Val Gly Val Gly Val Val Gly Val Ala Asn
 100 105 110
 Gly Arg Val Pro Lys Met Met Thr Ala Leu Met Pro Asn Lys Leu Ile
 115 120 125
 Arg Lys Pro Ser Ile Glu Arg Asp Thr Ala Ser Ser His Tyr Leu Arg
 130 135 140
 Cys Ser Pro Ala Leu Asp Ser Gly Ala Gly Ser Ser Arg Ser Asp Ser
 145 150 155 160

Pro His Ser His His Thr His Gln Pro Ser Ser Arg Thr Val Gly Asn
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 Pro Gly Gly Asn Gly Gly Phe Ser Pro Ser Pro Ser Gly Phe Ser Glu
 180 185 190
 Val Ala Pro Pro Ala Pro Pro Pro Arg Asn Pro Thr Ala Ser Ser Ala
 195 200 205
 Ala Thr Pro Pro Pro Pro Val Pro Pro Thr Ser Gln Ala Tyr Val Lys
 210 215 220
 Arg Arg Ser Pro Ala Leu Asn Asn Arg Pro Pro Ala Ile Ala Pro Pro
 225 230 235 240
 Thr Gln Arg Gly Asn Ser Pro Val Ile Thr Gln Asn Gly Leu Lys Asn
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 Pro Gln Gln Gln Leu Thr Gln Gln Leu Lys Ser Leu Asn Leu Tyr Pro
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 Gly Gly Gly Ser Gly Ala Val Val Glu Pro Pro Pro Pro Tyr Leu Ile
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 Gln Gly Gly Ala Gly Gly Ala Ala Pro Pro Pro Pro Pro Pro Ser Tyr
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 305 310 315 320
 Asp Tyr Arg Lys Ser Pro Ser Ser Gly Ile Tyr Ser Ala Thr Ser Ala
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 Gly Ser Pro Ser Pro Ile Thr Val Ser Leu Pro Pro Ala Pro Leu Ala
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 Lys Pro Gln Pro Arg Val Tyr Gln Ala Arg Ser Gln Gln Pro Ile Ile
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 Met Gln Ser Val Lys Ser Thr Gln Val Gln Lys Pro Val Leu Gln Thr
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 Ala Val Ala Arg Gln Ser Pro Ser Ser Ala Ser Ala Ser Asn Ser Pro
 385 390 395 400
 Val His Val Leu Ala Ala Pro Pro Ser Tyr Pro Gln Lys Ser Ala Ala
 405 410 415
 Val Val Gln Gln Gln Gln Gln Ala Ala Ala Ala Ala His Gln Gln Gln
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 His Gln His Gln Gln Ser Lys Pro Pro Thr Pro Thr Thr Pro Pro Leu
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 Val Gly Leu Asn Ser Lys Pro Asn Cys Leu Glu Pro Pro Ser Tyr Ala
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Lys Ser Met Gln Ala Lys Ala Ala Thr Val Val Gln Gln Gln Gln Gln
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 Ala Gln Arg Glu Arg Asp Gln Arg Glu Arg Glu Arg Asp Gln Gln Lys
 515 520 525
 Leu Ala Asn Gly Asn Pro Gly Arg Gln Met Leu Pro Pro Pro Pro Tyr
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 Gln Ser Asn Asn Asn Asn Asn Ser Glu Ile Lys Pro Pro Ser Cys Asn
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 Ile Pro Pro Ala Lys Tyr Asn Asn Asn Ser Ser Asn Thr Gly Ala Asn
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 Thr Ser Cys Lys Lys Ile Lys His Ala Ser Pro Ile Pro Glu Arg Lys
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 Lys Ile Ser Lys Glu Lys Glu Glu Glu Arg Lys Glu Phe Arg Ile Arg
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 Gln Tyr Ser Pro Gln Ala Phe Lys Phe Phe Met Glu Gln His Ile Glu
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 675 680 685
 Met Arg Lys Met Leu Asn Gln Lys Glu Ser Asn Tyr Ile Arg Leu Lys
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 Arg Ala Lys Met Asp Lys Ser Met Phe Val Lys Leu Lys Pro Ile Gly
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 Val Gly Ala Phe Gly Glu Val Thr Leu Val Ser Lys Ile Asp Thr Ser
 725 730 735
 Asn His Leu Tyr Ala Met Lys Thr Leu Arg Lys Ala Asp Val Leu Lys
 740 745 750
 Arg Asn Gln Val Ala His Val Lys Ala Glu Arg Asp Ile Leu Ala Glu
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Ala Asp Asn Asn Trp Val Val Lys Leu Tyr Tyr Ser Phe Gln Asp Lys
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 Asp Asn Leu Tyr Phe Val Met Asp Tyr Ile Pro Gly Gly Asp Leu Met
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 Tyr Ile Ala Glu Val Thr Cys Ala Val Asp Ser Val His Lys Met Gly
 820 825 830
 Phe Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Ile Asp Arg Asp
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 Gly His Ile Lys Leu Thr Asp Phe Gly Leu Cys Thr Gly Phe Arg Trp
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 Thr His Asn Ser Lys Tyr Tyr Gln Glu Asn Gly Asn His Ser Arg Gln
 865 870 875 880
 Asp Ser Met Glu Pro Trp Glu Glu Tyr Ser Glu Asn Gly Pro Lys Pro
 885 890 895
 Thr Val Leu Glu Arg Arg Arg Met Arg Asp His Gln Arg Val Leu Ala
 900 905 910
 His Ser Leu Val Gly Thr Pro Asn Tyr Ile Ala Pro Glu Val Leu Glu
 915 920 925
 Arg Ser Gly Tyr Thr Gln Leu Cys Asp Tyr Trp Ser Val Gly Val Ile
 930 935 940
 Leu Tyr Glu Met Leu Val Gly Gln Pro Pro Phe Leu Ala Asn Ser Pro
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 Leu Glu Thr Gln Gln Lys Val Ile Asn Trp Glu Lys Thr Leu His Ile
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 Pro Pro Gln Ala Glu Leu Ser Arg Glu Ala Thr Asp Leu Ile Arg Arg
 980 985 990
 Leu Cys Ala Ser Ala Asp Lys Arg Leu Gly Lys Ser Val Asp Glu Val
 995 1000 1005
 Lys Ser His Asp Phe Phe Lys Gly Ile Asp Phe Ala Asp Met Arg Lys
 1010 1015 1020
 Gln Lys Ala Pro Tyr Ile Pro Glu Ile Lys His Pro Thr Asp Thr Ser
 025 1030 1035 1040
 Asn Phe Asp Pro Val Asp Pro Glu Lys Leu Arg Ser Asn Asp Ser Thr
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 Met Ser Ser Gly Asp Asp Val Asp Gln Asn Asp Arg Thr Phe His Gly
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Phe Phe Glu Phe Thr Phe Arg Arg Phe Phe Asp Asp Lys Gln Pro Pro
1075 1080 1085

Asp Met Thr Asp Asp Gln Ala Pro Val Tyr Val
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